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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,555	05/18/2006	Gunter Rogoll	MSA 265	2113
<div>7590 Horst M Kasper 13 Forest Drive Warren, NJ 07059</div>			<div>EXAMINER TEIXEIRA MOFFAT, JONATHAN CHARLES</div>	
			<div>ART UNIT 2863</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 07/29/2008</div>	<div>DELIVERY MODE PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/574,555	<b>Applicant(s)</b> ROGOLL ET AL.	
	<b>Examiner</b> JONATHAN MOFFAT	<b>Art Unit</b> 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendments to the claims, in association with the Request for Continued Examination, filed 6/30/2008, are accepted and appreciated by the examiner. Applicant has amended claims 1 and 20 and added new claim 21.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**1.**

Claims 1-9, 11-12 and 17-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specific recitation of any one standard of fieldbuses including "IEC61158-2", "Foundation Fieldbus H1", "Profibus PA", "IEEE 802 Ethernet", and "ITU G.99x.x DSL" are not mentioned or suggested by the originally filed application as either examples or preferred embodiments of the invention.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claims 1, 13, 20 and 21 contain the language “adapted to” which has been deemed to be indefinite functional or intended use language. Applicant is encouraged to amend the claims to functionally describe the structure which enables this functionality if it is not inherent.

3.

Claims 1-9, 11-12 and 17-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claims 1, 20 and 21 include reference to standards such as “IEC61158-2”. Although theses are well understood standards in the art, they are indefinite as they are not static in time. For example, a review of the IEC standards website reveals that the “IEC 61158-2” standard is continually reviewed, updated and changed making its use in the claim indefinite.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**4.**

Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Scecina (US pat 5511223).

With respect to claim 13, Scecina discloses an apparatus comprising:

1) A modular fieldbus board (Fig 1) comprising a number of fieldbuses (Fig 1 item 40 is the fieldbus module, Fig 5 item 18 shows the fieldbus board itself) connected to a bulk power supply (column 3 lines 64-67).

2) A diagnostic system (Fig 1 item 50 and Fig 4) comprising a monitoring transceiver means (Fig 4 items 12-15) connected to two or more of the number of fieldbuses (Fig 1 items 40) by means of two or more signal injection and/or signal detection points, wherein the points are adapted to inject and/or detect both common mode and differential mode signals (abstract. According to the knowledge of one of ordinary skill in the art, any two-cable communication line is “adapted to” inject and/or detect such signals. Common mode is simply the average of the two line signals and thus both exist at the same time), and wherein the points are interposed between the bulk power supply and the fieldbus trunk, such that the monitoring transceiver means can detect one or more fieldbus physical layer characteristics between two of the two or more of said points (Figs 4 and 5).

3) A first digital and/or analog interface separate from the field bus trunk and adapted to transmit diagnostic data detected by the monitoring transceiver means directly to an associated digital or analog device (Fig 1 item 82 vs. “test cable and connector” which is the “fieldbus trunk”)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5.**

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eryurek (US pat 6859755) in view of DelaCruz (US pat pub 20040073402).

With respect to claim 13, Eryurek discloses an apparatus comprising:

1) A modular fieldbus board (Fig 1 item 18) comprising a number of fieldbuses (Fig 1 items 20 and Fig 2 each of which is a fieldbus unit in loop 18) connected to a bulk power supply (Fig 2 item 30).

2) A diagnostic system (Fig 2 item 36) comprising a monitoring transceiver means (Fig 2 item 32) connected to two or more of the number of fieldbuses (Fig 1 items 20) by means of two or more signal injection and/or signal detection points, wherein the points are adapted to inject and/or detect both common mode and differential mode signals (According to the knowledge of one of ordinary skill in the art, any two-cable communication line is “adapted to” inject and/or detect such signals. Common mode is simply the average of the two line signals and thus both exist at the same time), and wherein the points are interposed between the bulk power supply and

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the fieldbus trunk, such that the monitoring transceiver means can detect one or more fieldbus physical layer characteristics between two of the two or more of said points (Fig 2).

3) A first digital and/or analog interface separate from the field bus trunk and adapted to transmit diagnostic data detected by the monitoring transceiver means directly to an associated digital or analog device (Fig 2 item 32, for isolation, or Fig 4 item 206 also for isolation and separated monitoring communication).

With respect to claim 13, Eryurek fails to specify fieldbus physical layer characteristics between two of the two or more of said points.

DelaCruz teaches, with respect to claim 13:

2) A diagnostic system (Fig 1 item 22) comprising a monitoring transceiver means connected to one or more of the number of fieldbuses (Fig 1) by means of two or more common mode and/or differential mode signal injection and/or signal detection points, which points are dispersed between the bulk power supply and the fieldbus trunk, such that the monitoring transceiver means can detect one or more fieldbus physical layer characteristics between two of the two or more of said points (paragraph 0012).

**6.**

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eryurek and DelaCruz as applied to claim 13 above, and further in view of Westerfeld (WO 009945621).

With respect to claims 14-16, Eryurek and DelaCruz fail to disclose a power supply converter and conditioner. One of ordinary skill in the art would have found it obvious to put power conditioning and/or conversion onboard such a module to eliminate noise and, especially

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in the intrinsically safe environment of Eryurek, to prevent sparks or explosions. However, the examiner presents the following reference to show further this obviousness.

Westerfeld teaches, with respect to claim 14, power supply conversion (Fig 2 item 114) and power supply conditioning (Fig 2 item 1131-113n) in an intrinsically safe fieldbus (abstract) environment (Fig 1 item 1).

It would have been obvious to one of ordinary skill in the art, as stated above to modify the apparatus of Eryurek and DelaCruz by including power conversion and conditioning. Both Eryurek and Westfeld present the importance for intrinsic safety of such conversion to prevent an accident due to sparking or other power-related issues.

With respect to claims 15-16, the examiner has given these claims the broadest reasonable interpretation. The examiner maintains that these claims may be interpreted as “common mode signal detection points” being merely points within the system capable of being monitored with an injected or detected signal. The examiner maintains that, under this interpretation, since reference Westerfeld discloses such components connected to each other, these points do exist though they are not being actively monitored.



***Response to Arguments***

Applicant's arguments filed 6/30/2008 have been fully considered but they are not persuasive.

On page 11 of the response applicant argues that reference Scecina fails to disclose a “field bus”. The examiner respectfully disagrees. On page 11 applicant states that a “fieldbus” is an electrical apparatus for communication between devices such as sensors and a control system. Applicant then goes on to state that the sensors may be arranged “for instance” in an area at risk of explosion. Scecina discloses sensors connected to a control structure via an electronic component which interfaces between them. Further, Scecina discloses an unsafe environment in the form of a nuclear reactor. Thus, Scecina discloses a “fieldbus”.

On page 12 of the response, the applicant points out that reference Scecina does not use the same language as the present invention. The examiner agrees with this statement, but maintains that the cited components are equivalent in nature and function to the limitations of the claims whether or not they are labeled according to applicant's preference. The examiner points out that applicant is free to be his own lexicographer, but that in interpreting the scope of the claims, the examiner is bound not to the language chosen, but to the scope of the invention itself.

On page 16 of the response, applicant argues that Scecina fails to disclose a “fieldbus trunk”. Again, the examiner maintains that Scecina discloses a “fieldbus” according to the broadest reasonable interpretation of one of ordinary skill in the art. The same applies to the term “trunk” which generally refers to a bus or collection of data lines. Thus, the examiner maintains that the cited portion of Scecina is a “fieldbus trunk”.

As mentioned in previous office actions, the claims are generally narrative and broad. The examiner has given these claims, and terminology used therein, the broadest reasonable interpretation to one of ordinary skill in the art.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN MOFFAT whose telephone number is (571)272-2255. The examiner can normally be reached on Mon-Fri, from 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/jm/  
JM  
7/22/2008  
/Bryan Bui/  
Primary Examiner, Art Unit 2863